



PATENT  
Attorney Docket No.: 16869P-094600US  
Client Reference No.: 340101041US2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Kyosuke Achiwa et al.

Application No.: 10/661,467

Filed: September 12, 2003

For: THREE DATA CENTER  
ADAPTIVE REMOTE COPY

Examiner: Unassigned

Art Unit: 2186

INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

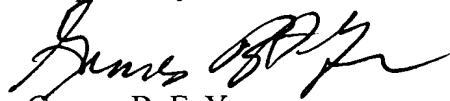
Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the foreign patent and non-patent references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



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60161711 v1



Substitute for form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<b>Complete if Known</b>	
				Application Number	10/661,467
				Filing Date	September 12, 2003
				First Named Inventor	Kyosuke Achiwa
				Art Unit	2186
				Examiner Name	Unassigned
Sheet	1	of	3	Attorney Docket Number	16869P-094600US

<b>U.S. PATENT DOCUMENTS+</b>				
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
	1	US-6,647,474	11-11-2003	Yanai et al
	2	US-6,625,705	09-23-2003	Yanai et al
	3	US-2003/167419	09-04-2003	Yanai et al.
	4	US-6,587,919	07-01-2003	Yanai et al
	5	US-6,539,462	03-25-2003	Mikkelsen et al.
	6	US-6,502,205	12-31-2002	Yanai et al
	7	US-6,418,509	07-09-2002	Yanai et al
	8	US-6,247,046	06-12-2001	Yanai et al
	9	US-6,230,239	05-08-2001	Sakaki et al.
	10	US-6,185,653	02-06-2001	Yanai et al
	11	US-6,173,377	01-09-2001	Yanai et al
	12	US-6,003,114	12-14-1999	Bachmat.
	13	US-5,996,045	11-30-1999	Lee et al.
	14	US-5,978,890	11-02-1999	Ozawa et al.
	15	US-5,960,216	09-29-1999	Vishlitzky et al
	16	US-5,940,865	08-17-1999	Ohzora et al.
	17	US-5,909,692	06-01-1999	Yanai et al
	18	US-5,901,327	05-04-1999	Ofek.
	19	US-5,896,548	04-20-1999	Ofek.
	20	US-5,835,954	11-10-1998	Duyanovich et al.
	21	US-5,819,020	10-06-1998	Beeler
	22	US-5,742,792	04-21-1998	Yanai et al.
	23	US-5,742,792	04-21-1998	Yanai et al
	24	US-5,740,465	04-14-1998	Matsunami et al.
	25	US-5,692,155	11-25-1997	Iskiyan et al.
	26	US-5,680,640	10-21-1997	Ofek et al.
	27	US-5,664,144	09-02-1997	Yanai et al
	28	US-5,644,787	07-01-1997	Nakamura et al.
	29	US-5,625,840	04-29-1997	Numata et al.
	30	US-5,613,155	03-18-1997	Baldiga et al.
	31	US-5,588,012	12-24-1996	Oizumi.
	32	US-5,572,699	11-05-1996	Kamo et al.
	33	US-5,544,347	08-06-1996	Yanai et al.
	34	US-5,544347	08-06-1996	Yanai et al
	35	US-5,379,398	01-03-1995	Cohn et al.
	36	US-5,247,665	09-21-1993	Matsuda et al.
	37	US-5,235,690	08-10-1993	Beardsley et al.
	38	US-5,206,939	04-27-1993	Yanai et al.
	39	US-5,155,845	10-13-1992	Beal et al.
	40	US-4,451,884	05-29-1984	Heath et al.
	41	US-3,990,055	11-02-1976	Henderson et al.

<b>FOREIGN PATENT DOCUMENTS</b>				
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or Applicant
				Pages, Columns, T <sup>6</sup>

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.  
60161711 v1



Substitute for form 1449A/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/661,467
(use as many sheets as necessary)				Filing Date	September 12, 2003
				First Named Inventor	Kyosuke Achiwa
				Art Unit	2186
				Examiner Name	Unassigned
Sheet	2	of	3	Attorney Docket Number	16869P-094600US

		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	42	JP	2000-305856		11-02-2000	Hitachi Ltd.		<input checked="" type="checkbox"/>
	43	JP	11-338647		12-10-1999	Hitachi Ltd.		<input checked="" type="checkbox"/>
	44	JP	09-325863		12-16-1997	Hitachi Ltd.		<input checked="" type="checkbox"/>
	45	JP	07-201132		08-04-1995	Mitsubishi Electric Corp		<input checked="" type="checkbox"/>
	46	JP	07-191811		07-28-1995	Hitachi Ltd		<input checked="" type="checkbox"/>
	47	JP	06-250795		09-09-1994	Hitachi Ltd		<input checked="" type="checkbox"/>
	48	JP	06-067811		03-11-1994	Fuji Xerox Co. Ltd		<input checked="" type="checkbox"/>
	49	JP	03-204023		09-05-1991	Fujitsu Ltd.		abstract only
	50	JP	02-059934		02-28-1990	NEC Corp		abstract only
	51	JP	64-033770		02-03-1989	NEC Corp		abstract only
	52	JP	58-219656		12-12-1983	Hitachi Ltd.		abstract only
	53	JP	58-151660		09-08-1983	Hitachi Ltd.		abstract only

Examiner Signature		Date Considered	
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Substitute for form 1449B/PTO				<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>				Application Number	10/661,467
(use as many sheets as necessary)				Filing Date	September 12, 2003
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				Art Unit	2186
				Examiner Name	Unassigned
Sheet	3	of	3	Attorney Docket Number	16869P-094600US

<b>NON PATENT LITERATURE DOCUMENTS</b>			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	54	ROSENBLUM "The Design and Implementation of a Log-Structured File System," ACM Transactions on Computer Systems 10:26-52 (1992).	
	55	"Symmetrix Data Migration Services (SDMS)" EMC <sup>2</sup> Symmetrix ICDA Family Product Information (2000).	

Examiner Signature		Date Considered	
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<sup>1</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>2</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.